REMARKS/ARGUMENTS

Claims 11-30 remain pending.

Claim 14 is amended to clarify the order of the steps. No new matter is added.

The rejection of Claims 11-15, 17-20, and 23-30 under 35 USC 102(b) and the rejection of Claims 21 and 22 under 35 USC 103(a) citing Stanley are not applicable because Stanley does not describe or suggest depositing a layer of material forming a self-supporting layer on a free face of the thick layer after bonding this thick layer on a final substrate and implanting in this thick layer.

Stanley, citing FIG. 2 and the underlying description in cols. 2-3, as in the rejections,[1] describes a method in succession:

depositing an oxide layer 3 on a first substrate 2;

implanting gaseous species in the first substrate through two of its main faces to create two buried weakened zones 4 and 4';

bonding final substrate 1, 1' on each main face to the first substrate 2; and

fracturing the structure at the weakened zones 4, 4' to provide two SOI substrates 6 and 6'.

Stanley does not describe or suggest depositing a layer of material forming a self-supporting layer on a free face of the thick layer after bonding this thick layer on a final substrate and implanting in this thick layer. Even if one considers that Stanley's initial substrate 2 corresponds to a thick layer and Stanley's substrate 1 corresponds to the final substrate, the deposition of the oxide layer 3 in Stanley clearly occurs before the bonding step. While the Examiner concluded that the method Applicants claim requires a self-supporting

[1] The rejection at page 2 also refers to "Abe." However, as there is no reference number (i.e. patent number) in the rejection heading, it is presumed that this is simply a typographical error and Applicants remarks focus solely on the cited Stanely disclosure.

layer, the Examiner appears not to have recognized that the "depositing a layer of a third material to form a self-supporting structure. . . " in the method Applicants claim is quite different from the method described by Stanley. While Applicants understand that, during the prosecution of an application in the Office, claims are to be given their broadest reasonable interpretation consistent with the teaching in the specification (*In re Bond*, 710 F.2d 831, 833 (Fed. Cir. 1990)), it is error to disregard express limitations in the claims. The Examiner may not set up a "strawman" claim and reject it rather than subject matter encompassed by the actual claims.

The plain language of Applicants' claims requires "depositing a layer of a third material to form a self-supporting layer" (cf Claim 11). It is known in the are that a stiffening substrate is not a self-supporting layer (see previously submitted publication of Ackermann et al (2003) *Appl Surf Sci* 212-213:411-416, note the title). Contrary to a substrate which is rigid because of its thickness, a self-supporting layer is a layer of a material having a thickness just sufficient for its use.

As described on page 2, lines 3-6 of the present application, it is known to use a process to obtain very thin layers, (typically less than 0.1 μm) However, problems can arise when trying to obtain very thin layers (typically less than 0.1 μm) due to the appearance of defects, for example blisters, starting from the bonding interface. The present application shows, as an example, the thickness of 4 μm for a self-supporting layer of silicon oxide (page 8, lines 10-13 and page 11, lines 3-7). The diagram of FIG. 3 in the present application and the text at page 12, line 9 to page 13, line 3 permits one to determine the relation between the minimum thickness of the self-supporting layer with respect to the temperature of fracture.

More specifically that portion of the specification, FIG. 3 is a diagram in which the ordinate represents the thickness e of the SiO_2 deposit and the abscissa represents the annealing temperature T. The curve shown in this diagram delimits the area in which the self-

supported silicon layer is transferred (the area located above the curve) from the area in which a "blister" occurs on the silicon layer (the zone located below the curve).

This diagram shows that the temperature of separation (or fracture) with transfer of a self-supported dual layer does depend on the deposited oxide thickness. The temperature is higher if the oxide is thinner. Consequently, the thickness of the fractured silicon layer needs to be added to this oxide thickness. Therefore, in particular it is possible to deduce the minimum thickness of oxide layer necessary for the fracture to be induced at a certain temperature. Therefore, it can be seen that the "threshold" fracture thickness at 600°C. is exceeded for 4 .μm of deposited oxide. Therefore, it is possible to control the thinning procedure by controlling the thickness of the deposited self-supporting layer, thus preventing "blistering" and exfoliation phenomena that would occur if the deposited layer is thinner than the "threshold" thickness.

Applicants submit that the Examiner erred in broadly interpreting the scope and content of the subject matter claimed in a manner inconsistent with the plain language of the claims and the teaching of the Specification.

Further, the oxide layer 3 in Stanley cannot be the same as a self-supporting layer, the aim of which is to assist the fracture to overcome the problem of blisters and rather Stanley's oxide layer 3 is formed to provide a buried oxide layer for the SOI susbtrates.

Accordingly, as nothing in Stanley discloses or suggests the presently claimed process Applicants respectfully request the reconsideration and withdrawal of the outstanding rejections, and the passage of this case to Issue.

Respectfully submitted,

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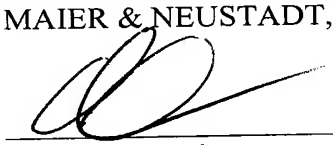

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